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EXAMINER

AVELLINO, JOSEPH E

| ART UNIT | PAPER NUMBER |
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2143

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------|----------------------------------|--|
| Office Action Summary | Application No. 10/075,233 | Applicant(s) CHATFIELD ET AL. | |
| | Examiner Joseph E. Avellino | Art Unit 2143 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/15/02.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-20, 22, 24-44 and 46-68 is/are rejected.
- 7) ☒ Claim(s) 13, 21, 23 and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5/31/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-68 are presented for examination; claims 1, 17, 22, and 34 independent.

Allowable Subject Matter

2. Claims 13, 21, 23, and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 32 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 32 and 33 recite the limitation "wherein the means for redirecting" lacks antecedent basis. It appears that these claims intend on being dependent upon claim 22 and will be examined as such. Correction is required.

Claim Objections

6. Claim 12 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper

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dependent form, or rewrite the claim(s) in independent form. This claim recites limitations upon the tunneling technique wherein it is not required for claim 11 (using one of a tunneling technique, a policy-based routing technique, and a MPLS based routing technique). Correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11, 14-15, 17, 18, 20, 22, 24-44, 46, 51, 52, 57, 58, 63, and 64 are rejected under 35 U.S.C. 102(e) as being anticipated by Zisapel et al. (USPN 6,665,702) hereinafter Zisapel.

8. Referring to claim 1, Zisapel discloses a system for one of a plurality of end-users of a common network (i.e. Figure 1, ref. 14) to select a second service provider (i.e. ISP) as a replacement for a first ISP, the first ISP and the second ISP providing services on the common network as customers of an operator of a high-speed network

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configured to provide connectivity between the plurality of end-users and both of the first ISP and the second ISP, comprising:

- a digital repository populated with a plurality of end user entries, each end-user entry corresponding to a unique one of the plurality of end-users (i.e. clients) including a current service provider (i.e. load balancer) for the corresponding end-user (Figure 1C, ref. 36) (inherently this is a digital repository since the load balancer must store the data digitally since it is a digital computer);

- a processor (an inherent feature of the load balancer/router); and

- a computer readable medium encoded with processor readable instructions that when executed by the processor implement

- a service provider discontinuation mechanism configured to store in a memory an indicator that the first service provider is no longer a customer of the operator of the high-speed network (the Office interprets this claim to be construed as the first service provider is not providing service to the end-users of the high speed network) (i.e. ISP unavailable) (col. 15, lines 25-43; col. 17, lines 11-17);

- an end-user determination mechanism configured to access the indicator in the memory and to query the digital repository to identify which of the plurality of end-users of the common network have a current service provider indicator indicating the first service provider (col. 17, lines 35-46);

- a service provider selection mechanism configured to access the digital repository via the high-speed network by one of the plurality of end-users, select the second service provider as the new service provider, and to update the current service

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provider indicator for the one of the plurality of end-users in the digital repository to reflect the second service provider (i.e. update periodically and checked) (col. 17, lines 54-57); and

an end-user redirection mechanism configured to direct each of the plurality of end-users identified by the end-user determination mechanism accessing the high-speed network to the service provider selection mechanism (i.e. when anyone else from the subnet attempts to access the server via the preferred ISP, the request is rerouted through the secondary ISP in the chance the connection is unavailable or overloaded to ensure the connectivity to the Internet (col. 17, lines 15-25).

9. Referring to claim 2, Zisapel discloses the repository is a database (the Office takes the term "database" to be a collection of entries in a tabular format) (i.e. client mapping table) (Figure 1B, ref. 36).

10. Referring to claim 3, Zisapel discloses the high-speed network comprises providing Internet access (Figure 3F, ref. 110).

11. Referring to claim 4, Zisapel discloses the high-speed network comprises an open access network (i.e. the Internet) (Figure 3F, ref. 110).

12. Referring to claim 5, Zisapel discloses the common network comprises an IP network (i.e. the Internet) (Figure 3F, ref. 110).

13. Claim 6 is rejected for similar reasons as stated above.

14. Referring to claim 7, Zisapel discloses a portion of the high-speed network comprises a hybrid fiber optic coaxial network (i.e. an inherent feature of the Internet) (Figure 3F, ref. 110).

15. Referring to claim 8, Zisapel discloses the first and second service providers comprise an ISP (Figure 3C, refs. 115, 120, 125).

16. Referring to claim 9, Zisapel discloses the end-user redirection mechanism is further configured to direct each of the plurality of end-users to the service provider selection mechanism using a wildcard DNS technique to resolve an end-user DNS address to an IP address of the service provider selection mechanism (the Office takes the term wildcard DNS to be a dynamic DNS reply such as Zisapel which discloses which IP address to map a www address, example used is www.radware.com to an IP address, example is 30.3.3.3) (Figure 4B; col. 16, line 59 to col. 17, line 5).

17. Referring to claim 10, Zisapel discloses the end-user redirection mechanism is further configured to use policy-based routing to direct the users to the service provider selection mechanism (Figure 6; col. 18, lines 45-67).

18. Claim 11 is rejected for similar reasons as stated above.

19. Referring to claim 14, Zisapel discloses directing each of the end users for a predetermined duration following an indication by the ISP discontinuation mechanism that the first service provider is no longer available to provide services on the high-speed network (i.e. periodically redetermining the network proximities and availabilities of the ISP) (col. 15, lines 39-45).

20. Referring to claim 15, Zisapel discloses the predetermined duration is a configurable amount of time (i.e. choosing from fixed times, predetermined amount of time elapsed, etc.) (col. 15, lines 39-45).

21. Claims 17, 18, 20, 22, 24-44, 46, 51, 52, 57, 58, 63, and 64 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zisapel.

24. Referring to claim 12, Zisapel discloses the invention substantively as described in claim 11. Zisapel does not disclose using an L2TP protocol. "Official Notice" is taken that both the concept and advantages of providing for using L2TP protocol is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to provide for using L2TP protocol in order to efficiently communicate using a well known tunneling protocol and thereby reducing the complexity of the system while increasing throughput of the tunnel.

Claims 16, 19, 47, 48, 53, 54, 59, 60, 65, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zisapel in view of Schmuelling et al. (USPN 6,603,758) (hereinafter Schmuelling).

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25. Referring to claim 16, Zisapel discloses the invention substantially as described in claim 14. Zisapel does not specifically disclose displaying a message to an end-user that has not selected a new ISP during the predetermined duration. In analogous art, Schmuelling discloses another network provisioning system which discloses displaying a message to an end-user that has not selected a new ISP during a predetermined duration (i.e. selecting an ISP from a list) (Figure 2, ref. 212-220). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Schmuelling with Zisapel since Zisapel discloses a plurality of methods for choosing an ISP path based on quality amongst other factors such as administrative preferences (col. 18, lines 36-44). This would lead one of ordinary skill in the art for other methods of connecting a client with an ISP, eventually finding the system of Schmuelling and facilitating an end-user in determining an ISP to use (e.g. abstract).

26. Referring to claim 47, Zisapel discloses the invention substantively as described in claim 34. Zisapel does not specifically disclose using a DOCSIS network. In analogous art, Schmuelling discloses using a DOCSIS network (col. 1, lines 25-40; col. 2, lines 44-50). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Schmuelling with Zisapel since Zisapel discloses a plurality of methods for choosing an ISP path based on quality amongst other factors such as administrative preferences (col. 18, lines 36-44). This would lead one of ordinary skill in the art for other methods of connecting a client with an ISP,

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eventually finding the system of Schmuelling and facilitating an end-user in determining an ISP to use (e.g. abstract).

27. Referring to claim 48, Zisapel in view of Schmuelling discloses the invention substantively as described in claim 34. Zisapel in view of Schmuelling disclose using a DOCSIS network rather than an EuroDOCSIS network. "Official Notice" is taken that both the concepts and advantages of providing for a EuroDOCSIS network instead of a DOCSIS network is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to provide EuroDOCSIS network in order to provide standardization where EuroDOCSIS is used, primarily in Europe, thereby allowing users to connect to the internet using a cable modem.

28. Claim 19, 53, 54, 59, 60, 65, and 66 are rejected for similar reasons as stated above.

Claims 49, 50, 55, 56, 61, 62, 67, and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zisapel in view of Yokell et al. (USPN 6,507,870) (hereinafter Yokell).

29. Referring to claim 49, Zisapel discloses the invention substantively as described in claim 34. Zisapel does not specifically disclose that a portion of the network comprises a DSL network. In analogous art, Yokell discloses another ISP selection

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system wherein a portion of the network comprises a DSL network (e.g. abstract). It would be obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Zisapel with Yokell in order to provide service to those clients without a cable modem but with DSL service, thereby encouraging competition between the ISP companies and prevent territorial monopolies on services.

30. Referring to claim 50, Zisapel in view of Yokell discloses the invention substantively as described in claim 34. Zisapel in view of Yokell do not disclose comprising a PPPoE network, rather a DSL network, however it is well known that a PPPoE network commonly exists over Digital Subscriber Lines and would have been obvious in view of Zisapel in view of Yokell to one of ordinary skill in the art in order to allow a point to point connection over the Internet to further allow connections to the service providers.

31. Claims 55, 56, 61, 62, 67, and 68 are rejected for similar reasons as stated above.

Conclusion

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

33. Lieberman (USPN 6,516,349) discloses updating a set of content providers based on changes in content provider directory without interruption of services.

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34. Kanevsky et al. (USPN 6,480,861) discloses distributed adaptive computing.
35. Hendrick (USPN 6,792,464) discloses automatic connection to a network.
36. McCanne et al. (USPN 6,415,323) discloses proximity based redirection system for robust and scalable service node location in a network.
37. Driscoll et al. (USPN 6,577,627) discloses service selection on IP access networks.
38. McCanne et al. (USPN 6,785,704) discloses content distribution system for operation over an Internet including content peering arrangements.
39. Wang et al. (USPN 6,636,505) discloses service provisioning a broadband modem.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



JEA

March 30, 2005

William C. Vaughn
Primary Examiner
Art Unit 2143
William C. Vaughn